ABSTRACT

A system and methods to optimize the resource planning of ADSL services is provided. In an illustrative implementation, a network management system (NMS) communicates with an ADSL network to provision resources for participating users. The provisioning process yields a permanent virtual circuit (PVC). Included in the provisioning process is the creation and management of configuration variables, such as, the virtual path identifier (VPI) and the virtual circuit identifier (VCI). The VPI/VCI combination uniquely identifies each PVC. If the provisioning process is aborted or fails, it may be reanimated by the NMS using the VPI/VCI combination. In this implementation, the VPI may be set to a constant value and the VCI value calculated using ADSL configuration values (e.g. the physical connection position on a first, second, third, etc. ADSL network component.) The deterministic nature of the VPI and VCI configuration variables assist the NMS to track and optimize available resources.